

**Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.**

Substitute for form 1449A/PTO		<i>Complete if Known</i>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		<b>Application Number</b>	10/532,387
		<b>Filing Date</b>	November 4, 2005
		<b>First Named Inventor</b>	Armando Pombeiro, et al.
		<b>Group Art Unit</b>	1621
		<b>Examiner Name</b>	Unknown
		<b>Attorney Docket Number</b>	10866/004
Q I P E (use as many sheets as necessary)			
Sheet	10	of	3

MAR 13 2006

## **U.S. PATENT DOCUMENTS**

## **FOREIGN PATENT DOCUMENTS**

EXAMINER SIGNATURE	/Paul Zucker/ (11/28/2006)	DATE CONSIDERED	11/28/2006
-----------------------	----------------------------	--------------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →

+

Approved for use through 10/31/2002, OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <small>Use as many sheets as necessary</small>		<b>Complete if Known</b>	
		Application Number	10/532,387
		Filing Date	November 4, 2005
		First Named Inventor	Armando Pombeiro, et al.
		Group Art Unit	1621
		Examiner Name	Unknown
Sheet <b>2</b>	of <b>3</b>	Attorney Docket Number	10866/004

MAR 13 2006

**OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS**

Examiner Trademark Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
PZ	2	M. ASADULLA, Y. TANIGUCHI, T. KITAMURA, Y. FUJIWARA, "One-step carboxylation reaction of saturated hydrocarbons with CO by CO(OAc) <sub>2</sub> catalyst under mild conditions," <i>Applied Catalysis A: General</i> 194-195 (2000) 443-452	
PZ	3	MOHAMMAD ASADULLAH, TSUGIO KITUMURA and YUZO FUJIWARA, "CaCl <sub>2</sub> -Catalyzed Functionalization of Saturated Hydrocarbons with CO to Carboxylic Acids and Esters," <i>Journal of Catalysis</i> 195, 180-186 (2000)	
PZ	4	ROBERT E. BERRY, ELAINE M. ARMSTRONG, ROY L. BEDDOES, DAVID COLLISON, S. NIGAR ERTOK, MADELEINE HELLIWELL and C. DAVID GARNER, "The Structural Characterization of Amavadin," <i>Angew. Chem. Int. Ed.</i> 1999, 38, No. 6	
PZ	5	P. CARAVAN, LUCIO GELMINI, NICHOLAS GLOVER, F. GEOFFREY HERING, HUALI LI, JOHN H. MCNEILL, STEEN J. RETTIG, IKA A. SETYAWATI, ED SHUTER, YAN SUN, ALAN S. TRACEY, VIOLET G. YUEN and CHRIS ORVIG, "Reaction Chemistry of BMOV, Bis(maltolato)oxovanadium(IV)-A Potent Insulin Mimetic Agent," <i>J. Am. Chem. Soc.</i> 1995, 117, 12759-12770	
PZ	6	CHEIN-TEIN CHEN, JEN-HUANG KUO, CHUN-HSIN LI, N.B. BARTHATE, SANG-WEN HON, TAI-WEI LI, SHI-DEH CHAO, CHIA-CHENG LIU, YING-CHIEH LI, I-HSIN CHANG, JIN-SHENG LIN, CHIN-JING LIU and Y-CHEN CHOU, "Catalytic Nucleophilic Acyl Substitution of Anhydrides by Amphoteric Vanadyl Triflate," <i>American Chemical Society</i> , 2001	
PZ	7	DEBBIE C. CRANS, HAOJIANG CHEN, OREN P. ANDERSON, and MARY M. MILLER, "Vanadium(V)-Protein Model Studies: Solid-State and Solution Structure," <i>J. Am. Chem. Soc.</i> 1993, 115, 6769-6776	
PZ	8	DEBBIE C. CRANS, JASON J. SMEE, ERNESTAS GAIDAMAUSKAS, and LUQIN YANG, "The Chemistry and Biochemistry of Vanadium and the Biological Activities Exerted by Vanadium Compounds," <i>Chem. Rev.</i> 2004, 104, 849-902	
PZ	9	BRENT J. HAMSTRA, ANDREW L. P. HOUSEMAN, GERARD J. COLPAS, JEFF W. KAMPF, RUSSELL LOBRUTTO, WAYNE D. FRASCH, and VINCENT L. PECORARO, "Structural and Solution Characterization of Mononuclear Vanadium(IV) Complexes that Help to Elucidate the Active Site Structure of the Reduced Vanadium Haloperoxidases," <i>Inorg. Chem.</i> 1997, 36, 4866-4874	
PZ	10	GALINA V. NIZOVA, GEORG SÜSS-FINK, SANDRINE STANISLAS, and GEORGIY B. SHUL'PIN, "Carboxylation of methane with CO or CO <sub>2</sub> in aqueous solution catalysed by vanadium complexes," <i>Chem. Commun.</i> , 1998 1885-1886	
PZ	11	PATRICIA M. REIS, JOSE ARMANDO L. SILVA, JOAO J.R. FRAUSTO DA SILVA and ARMANDO J. L. POMBEIRO, "Amavadine as a catalyst for the peroxidative halogenation, hydroxylation and oxygenation of alkanes and benzene," <i>Chem. Commun.</i> , 2000, 1845-1846	

EXAMINER SIGNATURE	/Paul Zucker/ (11/28/2006)	DATE CONSIDERED	11/28/2006
--------------------	----------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 3 1/2 of 3

*Complete if Known*

<b>Application Number</b>	10/532,387
<b>Filing Date</b>	November 4, 2005
<b>First Named Inventor</b>	Armando Pombeiro, et al.
<b>Group Art Unit</b>	1621
<b>Examiner Name</b>	Unknown
<b>Attorney Docket Number</b>	10866/004

MAR 13 2006

**OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Ref. No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
PZ	12	PATRICIA M. REIS, JOSE A. L. SILVA, ANTONIO F. PALAVRA, JOAO J. R. FRAUSTO DA SILVA, TSUGIO KITAMURA, YUZO FUJIWARA, and ARMANDO J. L. POMBEIRO, "Single-Pot Conversion of Methane into Acetic Acid in the Absence of CO and with Vanadium Catalysts Such as Amavadine," <i>Agnew. Chem. Int. Ed.</i> 2003, 42, No. 7 821-823	
PZ	13	YUKI TANIGUCHI, TAIZO HAYASHIDA, HIROYASU SHIBASAKI, DONGGUO PIAO, TSUGIO KITAMURA, TEIZO YAMAJI, and YUZO FUJIWARA, "Highly Efficient Vanadium-Catalyzed Transformation of CH <sub>4</sub> and CO to Acetic Acid," <i>Org. Lett.</i> , Vol. 1, NO. 4, 1999 557-559	

<b>EXAMINER</b> /Paul Zucker/ (11/28/2006)	<b>DATE CONSIDERED</b>	11/28/2006
--	------------------------	------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.